IBM Personal System/2 Model P70 386

PS/2 power for the taking

Now there's a better way to carry your business beyond the office: IBM Personal System/2® Model P70 386. This portable PS/2® delivers the same high levels of power and performance as the popular desktop PS/2 Model 70 386 in an easy-to-carry, briefcase-size system. And it packs the storage capacity, the graphics, even the communications capability you need to do advanced computing almost anywhere.

Compatible with other high-end PS/2s, Model P70 386 features Micro Channel™ architecture and a 80386™ microprocessor. It comes in three versions to give you a choice of data storage capacity and processor performance. And all three P70 models can have up to 8Mb on the system board. That's a huge amount of workspace and more than ample storage space for your files—it's almost like having an entire office "to go."

There's more. Model P70 386 boasts built-in VGA capabilities and a state-of-the-art display—as well as a full-size 101-key keyboard. Add to these its wealth of integrated functions and wide range of expansion options, and you've got a system that goes way beyond today's standard for portable computing.

It's no wonder, then, that the critics are taking notice of the P70's exceptional value. *PC World* recently rated it a "Best Buy"[1]—and you'll be sure to agree.

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Take advantage of top-of-the-line PS/2 power—wherever you like. Plug Model P70 386 into any available AC power source, and you're set to support sophisticated applications of every kind—from complex spreadsheets to project management packages to graphics programs. You can take advantage of IBM Operating System/2™—and the OS/2® Presentation Manager™—to support several applications at once. Or you can depend on IBM Disk Operating System (DOS) 4.0 to support single-task applications. You can even run programs under AIX™ PS/2.

Use an optional internal modem with your PS/2 Model P70 386, and you're set to do much more. You can, for example, download files from your company's mainframe at the same time you process a contract at a meeting out of town.

Present your work in the best possible light. Whether you're running a single program or several, visiting a client's home or working in your hotel room, you'll get an excellent view of all you do with Model P70 386. Its integrated 16-gray-level gas plasma display presents both text and graphics with incredible clarity and detail. And, because the display takes advantage of the computer's built-in VGA capabilities, you can present documents, advanced business graphics, even digitized photos on the spot.

In addition, for group presentations or whenever you like, you can easily connect another Personal System/2 display to Model P70 386 to get full VGA color or monochrome screen images.

Switchless setup means all you do is connect your system and begin. Convenient ports and plugs make it simple.

Optional Hayes™-compatible[3] internal modem—with speeds of 300, 1,200 or 2,400 bps—provides a communications link to your home office. So you can send and receive information wherever you need.

Wide range of connectivity options opens the door to efficient networking and multiple host communications and makes Model P70 386 ideal in any office environment.

What you get

IBM Personal System/2 Model P70 386 is packaged in one carton. In addition to the integrated system unit, the carton contains:

- One-page customer setup sheet
- System unit power cord
- Quick reference manual
- System reference diskette with diagnostics
- Set of three keyboard templates

Back left-side access panel

IBM Personal System/2 Model P70 386 at a glance

Machine numbers	8573-061	8573-121	8573-031
80386 microprocessor	20 MHz, 0–2 wait states	20 MHz, 0–2 wait states	16 MHz, 0-2 wait states
Optional 80387 Math Co-Processor	20 MHz	20 MHz	16 MHz
Memory (RAM)[4]			
Standard–maximum on system board	4Mb–8Mb (85ns)	4Mb–8Mb (85ns)	2Mb–8Mb (85ns)
System maximum	16Mb	16Mb	16Mb
Integrated display	16-gray-level gas plasma; high-contrast ratio; dark background		
Integrated functions	128Kb permanent memory (ROM), clock/calendar, Video Graphics Array (VGA) and display port, serial port, parallel port, pointing device port, keyboard port, ESDI disk controller and diskette controller with external storage device port		
System expansion	Two available expansion slots (one 16/32-bit full-size; one 16-bit half-size)		
Operating systems	DOS 3.3 or 4.0, IBM Operating System/2 Standard Edition 1.1 and 1.2 or Extended Edition 1.1 and 1.2,[5] AIX Personal System/2 (Models -061 and -121)		
Storage			
Standard	One 1.44Mb 3.5-inch diskette drive, 60Mb (27ms) fixed disk	One 1.44Mb 3.5-inch diskette drive, 120Mb (23ms) fixed disk	One 1.44 Mb 3.5-inch diskette drive, 30Mb (19ms) fixed disk
Optional	IBM 1.2Mb 5.25" External Diskette Drive (supported via an adapter card), IBM 360Kb 5.25" External Diskette Drive (supported via the built-in external storage device port and a cable connector), IBM 3363 Optical Disk Drive, IBM 6157 Streaming Tape Drive		
Text/graphics support	VGA supports 640 x 480 graphics mode plus all CGA, EGA and MCGA modes and provides up to 16 gray levels (gas plasma), 64 shades of gray (monochrome), or 256 colors from a palette of over 256,000		
Display modes			
Gas plasma integrated display	VGA, CGA, EGA and MCGA compatibility, including 640 x 480 pels x 16 gray levels		
Color/monochrome external displays	All VGA, CGA, EGA and MCGA modes, including: 320 x 200 pels x 256 colors—all points addressable 640 x 480 pels x 16 colors—all points addressable 9 x 16 character box—16 colors (text)		
Keyboard	101 keys, including 12 function keys, 3 lighted mode indicators; 14-inch coiled cable		
Supported displays	IBM Personal System/2 Color Displays 8512, 8513, 8514 (VGA mode only), and 8515 (VGA mode only); IBM Personal System/2 Monochrome Displays 8503 and 8507 (VGA mode only)		
Supported printers	IBM Proprinter™ family, IBM Quietwriter® Printers, IBM Personal Page Printer II, IBM Quickwriter® Printer, IBM LaserPrinter and IBM LaserPrinter E		
Communications support	IBM 300/1200/2400 Internal Modem/A, IBM Token-Ring Network PS/2 Model P70 386 Adapter/A, IBM PC Network Adapter II/A, IBM PC Network Adapter II/A Frequency 2/Frequency 3, IBM PC Network Baseband Adapter/A, IBM 3270 Connection, IBM System/36/38™ Workstation Emulation Adapter/A, IBM Dual Async Adapter/A, IBM Multi-Protocol Adapter/A, ROLMphone® 244PC		
Power supply	85-watt worldwide autosensing and autoswitching		
Size	Approx. 12"H x 18.3"W x 5"D (305mm x 465mm x 126mm); approx. 20.8 lbs. (9.4 kg) Models -061 and -121; 19.9 lbs. (8.9 kg) Model -031		

Highlights

However and wherever you put Model P70 386 to work for you, you'll benefit from the same high-powered features and functions available on the Model 70 386. That means you'll be in command of impressive capabilities that distinguish this portable computer from the rest.

Micro Channel architecture provides important benefits for the present—including speed, performance, data integrity, ease of use, and system reliability. It also protects your investment by giving you a platform for future growth.

High-speed 16 MHz or 20 MHz 80386 microprocessor handles 32 bits of data at a time to help you cut large processing jobs down to size. For even greater calculation speed, an optional IBM 80387 Math Co-Processor can be installed.

Integrated 16-gray-level gas plasma display presents crisp, detailed screen images of text and graphics against a dark background.

Built-in Video Graphics Array (VGA)—the same high-function graphics available on other PS/2s—supports Model P70 386's 16-gray-level gas plasma display and enables this portable to deliver impressive graphics performance. In addition, a standard VGA port equips Model P70 386 to support a PS/2 color or monochrome display.

2Mb or 4Mb of high-speed system memory—expandable to 8Mb on the system board and to 16Mb with memory expansion options—provides plenty of workspace and tremendous speed.

Detachable 101-key keyboard helps you work efficiently and comfortably by providing the same function and key layout as other PS/2 keyboards. So you'll be familiar with the keyboard right from the start.

Integrated functions pack more capabilities into fewer components. The result is enhanced reliability in a portable system that comes ready to support a printer or plotter, a PS/2 display, a pointing device—even an external diskette drive or tape backup unit.

30Mb, 60Mb or 120Mb fixed disk provides ready-access storage for extensive information. You'll be able to easily store large programs as well as lengthy files.

Front-loading 1.44Mb diskette drive lets you conveniently load files and programs stored on compact 3.5-inch diskettes. Each durable, high-density diskette can hold the equivalent of 720 pages[2] of information.

Two expansion slots (one full-size and one half-size) make it easy to add more functions to Model P70 386 to accommodate a variety of needs.

Enhancement products

Here are just some of the options and devices available for Model P70 386:

- IBM Personal System/2 80387 Math Co-Processor
- IBM Personal System/2 Enhanced 80386 Memory Option Kits (2Mb or 4Mb)
- IBM 2–8Mb 80386 Memory Expansion Option
- IBM Personal System/2 Mouse
- IBM 300/1200/2400 Internal Modem/A
- IBM Dual Async Adapter/A
- IBM Multi-Protocol Adapter/A
- IBM 3270 Connection
- IBM System 36/38 Workstation Emulation Adapter/A
- IBM Token-Ring Network PS/2 Model P70 386 Adapter/A
- IBM Token-Ring Network 16/4 Adapter
- IBM PC Network Adapter II/A Frequency 2 and 3
- IBM PC Network Adapter II/A
- IBM PC Network Baseband Adapter/A
- IBM Personal System/2 3117 Adapter/A
- IBM Personal System/2 5.25" External Diskette Drive Models 4869-001 and -002
- IBM 6157 Streaming Tape Drive
- IBM 3363 Optical Disk Drive
- Leather Carrying Case
- Nylon Carrying Case

Warranty/Service

Every IBM product is built to meet high standards of quality and reliability. So you can count on Model P70 386 to perform smoothly year after year.

Model P70 386 is backed by a one-year limited warranty. And extended service terms are available from IBM and from IBM Authorized Remarketers of IBM advanced products.

With an IBM Maintenance Agreement, you can arrange for on-site service.

IBM Personal System/2 Model P70 386 features

Feature	Function	Benefit
Intel 80386 microprocessor	Processes data at a clock speed of 16 MHz or 20 MHz (based on model)	Capability to handle the most intensive computing applications and process large amounts of data in small amounts of time
4Mb of memory (RAM)[4] expandable to 16Mb with memory expansion options	Offers access rate of 85 nanoseconds; provides electronic workspace for lengthy programs and files, and/or multiple applications	Rapid data processing; support for advanced applications, including multitasking applications and network services
Micro Channel architecture	Delivers rapid processing and throughput	Efficient, balanced and reliable system performance; foundation for future growth
Portability	Provides high levels of processing power and display performance in an easy-to-carry machine; has an optional carrying case	Capability to do advanced computing in any location where AC power is available
16-gray-level gas plasma display	Presents sharp, clear text and graphics; preserves shading and contrast of images	Easily readable text and graphics; convenient way to present information and graphics on the spot
Integrated functions and streamlined design	Pack more capabilities into fewer components using Surface Mount Technology (SMT) and Very Large Scale Integration (VLSI); include 128Kb of permanent memory containing security features and Advanced BIOS functions	Better price/performance; easy setup, operation and expansion; enhanced reliability; data and program security; support for concurrent operations; compatibility with current applications
Internal fixed disk drives	Provide 30Mb, 60Mb or 120Mb of storage for up to 15,000, 30,000 or 60,000 pages[2] of information; 19ms, 27ms or 23ms average access (based on model); user-selectable software disk cache memory; 1:1 disk interleave factor	Faster, more convenient access to programs and data than with diskettes; support for advanced applications, large data bases, and network services; enhanced throughput via reduced storage and retrieval time on fixed disks
1.44Mb 3.5-inch diskette drive	Front-loading; stores up to 720 pages[2] of information on a double-sided diskette	Easy access; high-density storage
3.5-inch diskettes	Protect media in hard plastic enclosure	Smaller, more portable; reliable storage
Built-in VGA capabilities	Include up to 16 gray levels (plasma) or 64 shades of gray (monochrome) plus 256 colors from a palette of over 256,000	High-quality, high-detail graphics and text
Enhanced keyboard	Has 101 keys, including 12 function keys and 3 lighted mode indicators	Simplified command entry; less chance of keystroke errors
Network and host capabilities	With the appropriate hardware and software, offer network services and connection to larger systems	Access to mainframe functions, files and applications; electronic mail capability; shared hardware and software
5.25-inch external diskette drive options	Provide capability to interchange data and software with systems that use 5.25-inch diskettes	Compatibility with IBM PC 360Kb and 1.2Mb diskettes
200Mb optical disk-drive option	Writes once, reads many times; holds up to 100,000 pages[2] of information on one cartridge	Large permanent storage; fixed disk backup; software archiving
External tape drive option	Saves/restores fixed disk data	Fixed disk backup and file restoration; removable media for archiving
IBM support and service	Assure parts and service nationwide; offer 12-month limited warranty	Customer purchase backed by IBM support and service

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[1] PC World, *September 1989.*

[2] *8½ x 11-inch, double-spaced typewritten pages.*

[3] *Certain functions are not supported. See Technical Reference Manual for details.*

[4] *128Kb of this memory is reserved for hardware system use.*

[5] *Refer to the OS/2 Information and Planning Guide (G360-2650-03) for the operational considerations of using OS/2 Extended Edition on a system with a 30Mb fixed disk.*

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